University of Minnesota

Twin Cities Campus

Telemedicine Center

DOCKET FILE COPY ORIGINAL

December 16, 1996

Office of the Secretary Federal Communications Commission Room 222 1919 M Northwest Washington D.C.

CC Docket No. 96-45

PECELIAL ROOM

Members of the FCC:

Enclosed is a copy of a survey reporting the costs and uses of service of telemedicine at the University of Minnesota. We are specifically concerned with the monthly cost of service, which is both arbitrary and expensive.

Table 4. Transmission Charges by Site

Site	Miles to Network Provider (MEANS)	Monthly Access Charge	Hourly Charge
Red Wing	60	\$1159	\$28/hr
Hibbing	195	\$1158	\$35/hr
Moose Lake	111	\$958	\$35
Staples	155	\$821	\$35/hr
University of Minnesota	10	\$365	\$15/hr
Wadena	173	\$250	\$35/hr

We have used telemedicine to provide medical consultation to over 200 patients, primarily in the areas of dermatology, orthopedics, psychiatry, neurology, and emergency care. In addition to the medical consultation, we have launched a Rural Health School, where nursing, pharmacy, and medicial students receive training using the interactive system.

We hope that you find this information useful to your work.

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Sincerely,

No. of Copies rec'd List ABCDE

Andrea De Vries Program Manager

	Quest	tions	to 1	ddress	Į
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University	of	Minnesota	Telemedicine	Demonstrat

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university of Minnesota Tel					MP	>
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Please list each of the project me of Site: Tri-County Hospital-Wadena	cc's s	tes: in which	it i	s loca	ched:	
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me of Site: Tri-County Hospital-Wadena Greater Staples Hospital-Staples	State	in which MN MN	it i	loca	CHA:	

Please answer the following questions for each of your sites. Use additional sheets if necessary.

- 1. Wadena
- 3. What is the nearest city of population equal to or greater than 50,000 in your state, and approximately how far are you from its boundary?

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- 4. Name of the project's telecommunications service provider: MEANS Network
- 5. Level of telecommunications service the project is currently using: (For example, voice grade, 144 Kbps (ISDN), 384 Kbps, T-1 or equivalent)

T-1

6.	Charges	for	telec	ommunicat	cions s	ervice:			
Is	there a m	non th	ly oh	irge? No	U Ye	as 💢			
	yes, how					\$250/mo	· · · · · · · · · · · · · · · · · · ·		
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				Radiology					_
				EKG			····		· ·
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(1-3)

providin of bandw levels o transmis care act twice as	d the project provide the services it is currently g with less bandwidth? What effect would a lesser level idth have? (The implications of using greater or lesser t relecommunications services are related to image sion time. What would the be the impact if the health ivities for which you now use telecommunications took long, or if they could be completed in half the time?)
	r interactive consults, we can reduce our bandwidth to and have satisfactory results.
Fo	r EKG readings, we use full T-l lines.
·,If	we did not have our current level of bandwidth, use of
the	e system would drop significantly.
bandwidtl If	would the implications of having a greater level of be? we had greater bandwidth, we would have greater ticipation in our activities with the rural providers
-	d urban specialists.
	. Cladic operations
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(1-4)

10. Do you have e-mail? No D Yes X

11. Do you have Internet access? No D Yes X

If yes, do you incur long-distance charges by using it?

No X Yes D

Please estimate your number of hours of Internet use per month:

20 hours/month

Wadena - 20

12. If you have access to the Internet, please list any
purposes other than e-mail (such as accessing databases such as Lexis/Nexis) for which you use it:

Use internet for scheduling telemedicine

conferences and learning about educational

activities.

Questions	te a	daress
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1. Mame of project	:		·
University	of Minnesota Telemedicine	Demonstration	ment .
Please list eac	n of the project's site	8:	•
Name of Site: Greater Staples H	State in	which it is locat	ed:
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se additional she . What is the ne	collowing questions for ets if necessary. Trest city of population state, and approximate)	equal to or grea	ter
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se additional she . What is the ne han 50,000in your ts boundary? ity; St. Cloud, MN	rest city of population state, and approximate) Distance from city by	equal to or greally how far are you bundary: 90 miles	ter
What is the neckan 50,000 in your ts boundary? Ity: St. Cloud, MN Name of the pro-	rest city of population state, and approximate) Distance from city by process telecommunication MEANS Network Tor example, voice grad	equal to or greaty how far are you bundary: 90 miles	ter from

6. Charges for telecommunications s	ervice:
Is there a monthly charge? No U Ye If yes, how much is the charge?	\$600/mo
Is there a usage-based charge? No G If yes, how much is the charge?	Yes \$ \$35/hr
Is there a distance component (such charge? No C Yes X If Yes, how much is the charge?	
Was there an installation fee? No D If yes, how much was the charge?	Yes X \$1500
from the telecommunications provider If there is a discount, how much is The there is a discount, how much	munications in the delivery send x-rays, distribute m video consultations. isodic uses, such as might
Orthopedics	
Rheumatology Training of medical students, pharmacy st	udents, and nursing students
Training of medical Scatteres, pharmacy St	mental and managed and and

8. Could the project provide the services it is currently providing with less bandwidth? What effect would a lesser leve of bandwidth have? (The implications of using greater or lesse levels of telecommunications services are related to image transmission time. What would the be the impact if the health care activities for which you now use telecommunications took twice as long, or if they could be completed in half the time?)
For interactive consults, we can reduce our bandwidth
. to 1_2 T, and have satisfactory results.
For EKG readings, we can use full T-1 lines.
If we did not have our current level of bandwidth,
participation in our program would drop significantly.
9. What would the implications of having a greater level of bandwidth be?
If we had greater bandwidth, we would increase
participation with rural providers and specialists.

10. Do you have e-mail? No D Yes

11. Do you have Internet access? No D Yes A 10 Pes, do you incur long-distance charges by using it?
No D Yes A Please estimate your number of hours of Internet use per month:

Wadena - 20

12. If you have access to the Internet, please list any purposes other than e-mail (such as accessing databases such as Lexis/Nexis) for which you use it:

20 hours/month

Scheduling consults, identifying educational opportunities available over the interactive telemedicine system.

	Questions	to 1	Mdr	888	ł
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1. Na	ame of project:	
	University of Minnesota Telemedicine Demonstration	
2. Pl	lease list each of the project's sites:	
	of Site: State in which it is located: ercy Hospital-Moose Lake MN	
4 1974		
Jse # 3. W than	se answer the following questions for each of your sites. Additional sheets if necessary. That is the nearest city of population equal to or greater 50,000in your state, and approximately how far are you from coundary?	
City;	Duluth, MN Distance from city boundary: 60 miles	
4. N	ame of the project's telecommunications service provider: MEANS Network	
chrro	evel of telecommunications service the project is mtly using: (For example, voice grade, 144 Kbps (ISDN), bps, T-1 or equivalent)	

6. Charges for telecommunications service:	
Is there a monthly charge? No U Yes X	
If yes, how much is the charge? \$900/mo	
Is there a usage-based charge? No G Yes X	
If yes, how much is the charge? \$35/hr	•
Is there a distance component (such as a per-mile fee) of the charge? No E Yes X	
If yes, how much is the charge? \$35/hr	
Was there an installation fee? No 0 Yes 2 If yes, how much was the charge? \$1500	
from the relecommunications provider? Tarrifed Discount of there is a discount, how much is it?	
7. How does the project use telecommunications in the delivery	- 1
of health care? (For example to send x-rays, distribute public health information, or perform video consultations.	
Please identify any occasional or episodic uses, such as might	And Control of the Co
result from an outbreak of disease.)	<u></u>
Rural Health School-	
Training of nursing, medical, and pharmacy students	• · · · · · · · · · · · · · ·
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(3-3)

8. Could the project provide the service	es it is currently
providing with less bandwidth? What effort of bandwidth have? (The implications of levels of telecommunications services are	using greater or lesser e related to image
transmission time. What would the be the	e impact if the health
care activities for which you now use te twice as long, or if they could be compl-	sted in half the time?)
Participation in Rural Health Sc	hoo1
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9. What would the implications of having	g a greater level of
bandwidth be?	
Participation in Rural Health S	chool
would increase.	

(3-4)

- 10. Do you have e-mail? No D Yes X

 11. Do you have Internet access? No D Yes X
- 11. Do you have Internet access? No D Yes X If yes, do you incur long-distance charges by using it?

Please estimate your number of hours of Internet use per month:

100 hours/month

Wadena - 20

12. If you have access to the Internet, please list any purposes other than e-mail (such as accessing databases such as Lexis/Nexis) for which you use it:

Scheduling for telemedicine,
educational opportunities.

(4-1)

Questio	ns to	Addr	ess :
			KELK!

1. Name of project:
University of Minnesota Telemedicine Demonstration
2. Please list each of the project's sites:
Name of Site: Interstate Medical Center-Red Wing MN
Please answer the following questions for each of your sites. Use miditional sheets if necessary. 3. What is the nearest city of population equal to or greater than 50,000in your state, and approximately how far are you fits boundary?
City; Minneapolis, MN Distance from city boundary: 60 miles
4. Name of the project's telecommunications service provider: MEANS Network
•
5. Level of telecommunications service the project is currently using: (For example, voice grade, 144 Kbps (ISDN), 384 Kbps, T-1 or equivalent)
T-1

6. Charges for telecommunications service:	
Is there a monthly charge? No U Yes X	
If yes, how much is the charge? \$1,159/mo	
Is there a usage-based charge? No C Yes X	
If yes, how much is the charge? \$28/hr	•
Is there a distance component (such as a per-mile fee) of the charge? No D Yes M	
If yes, how much is the charge? . \$28/hr (same as above)	-
Was there an installation fee? No 0 Yes A	
If yes, how much was the charge? \$1500	Must
from the telecommunications provider? Tarrifed Discount of there is a discount, how much is it?	
7. How does the project use telecommunications in the delivery	and Market gaves. Ngjar
of health care? (For example to send x-rays, distribute	
public health information, or perform video consultations.	
Please identify any occasional or episodic uses, such as might	A CONTRACTOR OF THE CONTRACTOR
result from an outbreak of disease.)	
(same as other sites)	 -
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8. Could the property	ject provide the services it	is currently ould a lesser level
of bandwidth have: levels of telecom	7 (The implications of using munications services are related what would the be the impart	greater or lesser
care activities fo	or which you now use telecome if they could be completed in	unications took
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	(same as other sites)	
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- 10. Do you have e-mail? No D Yes X
- 11. Do you have Internet access? No D Yes X

 If yes, do you incur long-distance charges by using it?

 No D Yes X

 Discrepance there are not below of Taborica use nor more.

Please estimate your number of hours of Internet use per month:
40 hours/month

Wadena - 20

12. If you have access to the Internet, please list any purposes other than e-mail (such as accessing databases such as Lexis/Nexis) for which you use it:

Scheduling telemedicine	conferences.
	•

6. Charges for telec	communications s	ervice:
Is there a monthly of If yes, how much is t		41 150/
Is there a usage-base If yes, how much is t		Yes \$ \$35/hr
Is there a distance of charge? No D Yes & If Yes, how much is t	(as a per-mile fee) of the \$35/hr
Was there an installa If yes, how much was	tion fee? No 0	
from the telecommunical of there is a discount of health care? (For public health information of the formation of the project of the public health information of the project of the proje	ations provider: t, how much is : ect use telecome example to : tion, or perform ccasional or epi ak of disease.)	munications in the delivery send x-rays, distribute m video consultations. isodic uses, such as might
(sa	ame as other sites	5)
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(5-3)

8. Could the project provide the services it is currently providing with less bandwidth? What effect would a lesser leve of bandwidth have? (The implications of using greater or lesse levels of telecommunications services are related to image transmission time. What would the be the impact if the health care activities for which you now use telecommunications took twice as long, or if they could be completed in half the time?)
(same as other sites)
·
,
9. What would the implications of having a greater level of bandwidth be?
(same as other sites)
·

(5-4)

10. Do you have e-mail? No D Yes X

11. Do you have Internet access? No D Yes X

11. Do you have Internet access? No D Yes X

12. Yes D

13. If you have access to the Internet, please list any purposes other than e-mail (such as accessing databases such as Lexis/Nexis) for which you use it:

Scheduling telemedicine activities.